REMARKS

Upon entry of this amendment, claims 1-29 are pending. Claims 30-33 are canceled. Claims 1, 23, and 24 have been amended. Applicants respectfully submit that the amendments do not introduce new matter and are made without any intention to abandon the subject matter as filed, but with the intention that claims of the same, greater, or lesser scope may be filed in a continuing application.

Objection to the Drawings

The Examiner objected to Figure 3, contending that it is oversized and that part of Figure 3A is lost. Applicants submit herewith another copy of Figure 3 at Exhibit A. Applicants respectfully request that the objection be reconsidered and withdrawn.

Rejections Under 35 U.S.C. §112, Second Paragraph

The Examiner rejected claim 22 under 35 U.S.C. §112, second paragraph, contending that it is indefinite because "identifying is carried out on a cDNA microarray" is unclear. Applicants traverse the rejection to the extent it is maintained over the claims as amended.

Applicants respectfully submit that they believe the Examiner is referring to claim 24, which contains the objected-to language. Applicants submit that claims 23 and 24 now recite "step of identifying" and "identifying step is performed on", respectively, to further clarify and broaden the claim language. Applicants respectfully request that the rejection be reconsidered and withdrawn.

Rejections Under 35 U.S.C. §112, First Paragraph

The Examiner rejected claims 19-21 under 35 U.S.C. §112, first paragraph, contending that they contain subject matter that was not described in the Specification in such a way as to reasonably convey to one skilled in the art that the inventors had possession of the claimed invention at the time the application was filed. Applicants traverse the rejection to the extent it is maintained over the claims as amended.

Applicants submit that their specification provides support for a component that associates with an mRNP complex if it associates with a Kd of about 10^{-6} to about 10^{-9}, about $.10^{-7}$ to about 10^{-9}, and about 10^{-8} to about 10^{-9} in paragraph 44 of the Specification. Applicants submit that they do not require drawings of such structures for binding and that the Kd of such an interaction is well known in the art or is easily determined by a skilled artisan. Applicants respectfully request that the objections be reconsidered and withdrawn.

Rejections Under 35 U.S.C. §102

The Examiner rejected claims 1, 2, 8, 11-14, 17, 26, and 29 under 35 U.S.C. §102(b) as being anticipated by Allen et al. (1998) Mol. Cellul. Biol. 18:6014-6022 ("Allen"). Applicants traverse the rejection to the extent it is maintained over the claims as amended.

Applicants submit that Allen does not describe contacting an mRNA-protein complex with at least one ligand and separating the mRNP complex by binding the ligand with a binding molecule specific for the ligand, wherein the binding molecule is attached to a solid support, and collecting the mRNP complex by removing the mRNP complex from the solid support. Allen describes immunoprecipitation of mRNPs using MAbs followed by either elution of proteins and protein analysis or by RNA analysis. Allen does not disclose collecting an mRNP complex by removing an mRNP complex from a solid support. Because Allen does not identically disclose Applicants' claimed invention, Applicants respectfully submit that Allen is not a proper reference under 35 U.S.C. §102(b). Applicants respectfully request reconsideration and withdrawal of the rejection.

The Examiner rejected claims 1, 2, 5-8, 12-15, 17, 25, and 26 under 35 U.S.C. §102(a) as being anticipated by Antic et al. (1999) Genes & Development 13:449-461 ("Antic"). Applicants traverse the rejection to the extent it is maintained over the claims as amended.

Applicants submit that Antic does not describe contacting an mRNA-protein complex with at least one ligand and separating the mRNP complex by binding the ligand with a binding molecule specific for the ligand, wherein the binding molecule is attached to a solid support, and collecting the mRNP complex by removing the mRNP complex from the solid support.

Antic describes immunoprecipitation of mRNPs using an antibody to Hel-N1 protein followed by either protein analysis or RNA analysis. Antic does not disclose collecting an mRNP complex by removing an mRNP complex from a solid support. Because Antic does not identically disclose Applicants' claimed invention, Applicants respectfully submit that Antic is not a proper reference under 35 U.S.C. §102(a). Applicants respectfully request reconsideration and withdrawal of the rejection.

The Examiner rejected claims 1, 2, 8, 12-14, 17, 26, and 27 under 35 U.S.C. §102(a) as being anticipated by Reim et al. (1999) Exp. Cell Res. 253:573-86 ("Reim"). Applicants traverse the rejection to the extent it is maintained over the claims as amended.

Applicants submit that Reim does not describe contacting an mRNA-protein complex with at least one ligand and separating the mRNP complex by binding the ligand with a binding molecule specific for the ligand, wherein the binding molecule is attached to a solid support, and collecting the mRNP complex by removing the mRNP complex from the solid support. Reim describes immunoprecipitation of NonA protein followed by either elution of the immunocomplexes for protein analysis or elution of the immunocomplexes for RNA analysis. Reim does not disclose collecting an mRNP complex by removing an mRNP complex from a solid support. Because Reim does not identically disclose Applicants' claimed invention, Applicants respectfully submit that Reim is not a proper reference under 35 U.S.C. §102(b). Applicants respectfully request reconsideration and withdrawal of the rejection.

The Examiner rejected claims 1-9, 13-17, 23, and 25-28 under 35 U.S.C. §102(b) as being anticipated by Keene et al. (U.S. Patent No. 5,773,246) ("Keene"). Applicants traverse the rejection to the extent it is maintained over the claims as amended.

Keene does not describe contacting an mRNA-protein complex with at least one ligand and separating the mRNP complex by binding the ligand with a binding molecule specific for the ligand, wherein the binding molecule is attached to a solid support, and collecting the mRNP complex by removing the mRNP complex from the solid support. For example, column 24, lines 34-63 of Keene describes the binding of an RBP, Hel-N1 protein, to anti-g10 antibody and immunoprecipitation, followed by the addition of labeled RNA transcripts and isolation of RNAs

that bind to the RBP. In that disclosure, an RBP was immunoprecipitated (column 24, line 41), not an mRNP complex. In the Hela experiments described in column 24, lines 54-63, Applicants submit that Hela nuclear extracts were used to make labeled proteins. Column 27, line 27 through column 28, line 20, which was cited by the Examiner, describes immunoprecipitation of RNPs using an anti-Hel-N1 antibody followed by extraction of RNA. Keene does not disclose collecting an mRNP complex by removing an mRNP complex from a solid support. Because the Keene patent does not identically disclose Applicants' claimed invention, Applicants respectfully submit that Keene is not a proper reference under 35 U.S.C. §102(b). Applicants therefore respectfully request that the rejection be reconsidered and withdrawn.

The Examiner rejected claims 1-6, 12-15, 17, and 26 under 35 U.S.C. §102(b) as being anticipated by Buckanovich et al. (1997) Mol. and Cellul. Biol. 17(6):3194-3201 ("Buckanovich"). Applicants traverse the rejection to the extent it is maintained over the claims as amended.

Buckanovich does not describe contacting an mRNA-protein complex with at least one ligand and separating the mRNP complex by binding the ligand with a binding molecule specific for the ligand, wherein the binding molecule is attached to a solid support, and collecting the mRNP complex by removing the mRNP complex from the solid support. Buckanovich discloses immunoprecipitation of mRNPs from mouse brains followed by mRNA preparation and characterization by RT-PCR. Buckanovich does not disclose collecting an mRNP complex by removing an mRNP complex from a solid support. Because the Buckanovich does not identically disclose Applicants' claimed invention, Applicants respectfully submit that Buckanovich is not a proper reference under 35 U.S.C. §102(b). Applicants therefore respectfully request that the rejection be reconsidered and withdrawn.

The Examiner rejected claims 1, 2, 8, 10, 18, and 26 under 35 U.S.C. §102(a) as being anticipated by Takeda et al. (1999) J. Immunol. 163:6269-6274 ("Takeda"). Applicants traverse the rejection to the extent it is maintained over the claims as amended.

Takeda does not describe contacting an mRNA-protein complex with at least one ligand and separating the mRNP complex by binding the ligand with a binding molecule specific for

the ligand, wherein the binding molecule is attached to a solid support, and collecting the mRNP complex by removing the mRNP complex from the solid support. Takeda discloses immunoprecipitation and analysis of proteins or RNAs from Hela cell extracts. Takeda does not disclose collecting an mRNP complex by removing an mRNP complex from a solid support. Because Takeda does not identically disclose Applicants' claimed invention, Applicants respectfully submit that Takeda is not a proper reference under 35 U.S.C. sec. 102(a). Applicants therefore respectfully request that the rejection be reconsidered and withdrawn.

CONCLUSION

Applicants respectfully urge that all claims are in condition for allowance and request prompt and favorable action on the instant application. If the Examiner believes that a telephonic interview with the undersigned would expedite prosecution of this application, the Examiner is cordially invited to call the undersigned at (617) 338-2952.

Respectfully submitted,

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